



Chapter V

Computer-Supported Learning of Information Systems: Matching Pedagogy With Technology

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ABSTRACT

New information technologies (IT) can enhance management information systems (MIS) education by improving the quality of the learning experience. This chapter proposes a tri-dimensional conceptual model based on the pedagogical assumptions of the course, the time dimension of the communication between students and professors, and the geographical location of learners and instructors. The implications of the model are reviewed in terms of their potential to contribute to teaching MIS courses and doing research in computer-supported MIS education.

INTRODUCTION

Educational applications of Information Technology (IT) have received increased attention in the academic literature (e.g., Alavi, Wheeler, & Valacich, 1995; Alavi, Yoo, & Vogel, 1997; Hiltz, 1994; Webster & Hackley, 1997) and in the business and professional press (e.g., Hibbard, 1998). Information systems classes are the source of many groundbreaking studies, though IT is being applied

This chapter appears in the book, *Challenges of Information Technology Education in the 21st Century* by Eli Cohen.

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to teach virtually every academic subject. Most studies focus on how IT can enhance or substitute for traditional classroom activities. However, with very few exceptions such as Leidner and Jarvenpaa (1995), little attention has been paid to the development of systematic models to guide successful applications of IT in educational settings. There is a need for a systematic appraisal of the possible learning gains when pedagogy is leveraged with technology.

Computer-supported learning (CSL) environments promise to enhance traditional teaching models and permit the exploration of new teaching/learning paradigms that were not possible before. CSL is the use of a computer connected to the Internet or an intranet (restricted or in-house network) to provide instruction to students on the network. CSL involves taking advantage of the computer's graphic and communication capabilities, including presentations, simulations, chat-rooms, email and testing software. CSL can be used in a traditional university classroom setting, a corporate classroom or at the "home" desk of a student or worker learner.

A learning revolution based on the connectivity of the Internet and the potential of the World Wide Web is underway. Information technology and management information systems (MIS) courses, as well as courses in many other subject areas, are being transformed by the prospect of harnessing IT inside and outside the classroom. The aim of this chapter is to review theoretical and empirical research on CSL, examine the implications for MIS education and present an alignment framework to focus instructional and research thinking. The three driving forces of this framework are the pedagogical model driving the course, the time dimension of communication between students and professors, and the geographical location of course participants. These three factors will define a new framework to suggest and to analyze pedagogically effective situations in MIS education.

BACKGROUND

Computer-supported learning has received increased attention from educators and researchers as a result of the convergence of technology and economics (Chatterji, 2000). In technology, rapid advances in telecommunications are linking not only individual students with their peers and instructors, but also entire schools with their counterparts across the globe. These changes are fueled by the increased affordability of personal computers and the explosive growth of computer-mediated communications that are responsible for the larger number of computers in households, campuses and offices.

At the economic level, colleges and universities are facing declining resources and are looking for ways to reduce costs or to expand their markets (Alavi, Yoo, & Vogel, 1997). For them, computer-supported learning options represent an opportunity and a threat (Twigg, 2000). On the one hand, they

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